



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,922	10/01/2003	Charles W. Friedli	ISO1359ESG	1767
7590	06/27/2005		EXAMINER	
MOTOROLA ENERGY SYSTEMS GROUP 1700 BELLE MEADE COURT LAWRENCEVILLE, GA 30043			PIGGUSH, AARON C	
			ART UNIT	PAPER NUMBER
			2838	

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/677,922	FRIEDLI ET AL.	
	Examiner Aaron Piggush	Art Unit 2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 01 October 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-14 is/are rejected.
- 7) Claim(s) 10-14 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 01 October 2003 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because Fig. 1 should be designated by a legend such as -- Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Furthermore, the drawings fail to comply with 37 CFR 1.84(p)(5) because they do not include the reference sign 413 mentioned in the description, and because they do include the following reference character(s) not mentioned in the description: 203, 207, 304, and 404. Additionally, reference number 205 in Fig. 3 points to the wrong part, and it refers to two different parts (the other barbed wing member and the opposite edge) in the description. Also, reference number 200 in Fig. 4 does not point to the battery latch. Finally, one of the 411 reference numbers in Fig. 5 does not point to the arms of the butterfly spring.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Rechargeable Battery Pack and Latch with Mechanisms for Coupling to a Host Device.

3. The disclosure is objected to because of the following informalities: Reference number 205 refers to two different parts in the specification (the other barbed wing member and the opposite edge) on lines 1 and 2 of page 4. Appropriate correction is required.

Claim Objections

4. Claims 10-14 are objected to because they recite "the battery pack." There is insufficient antecedent basis for this limitation in the claims because they are referring to claim 9 which recites a "rechargeable battery pack." Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-5, 9, and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Ferrell (US 4,213,078).

With respect to claim 1, Ferrell discloses a latch for a rechargeable battery pack (abstract ln 4-8), comprising:

a planar member (30 in Fig. 1);
at least one spring retention post coupled to the planar member (20-2 in Fig. 3);
at least one insertion snap coupled to the planar member (as seen on 30 in Fig. 3); and
at least one barbed wing member coupled to the planar member, extending distally outward from the planar member (as seen on the side of 30 in Fig. 3 or 20-1 in Fig. 3).

With respect to claim 2, Ferrell discloses the latch of claim 1, further comprising at least one mechanical stop coupled to the planar member (30-2 in Fig. 12).

With respect to claim 3, Ferrell discloses the latch of claim 2, further comprising at least one barbed wing member support, wherein the at least one barbed wing member support extends perpendicularly from the planar member such that the barbed wing member is in a non-coplanar geometric relationship with the planar member (as seen on 30 in Fig. 3 and bottom of 30-1 in Fig. 12).

With respect to claim 4, Ferrell discloses the latch of claim 2, further comprising a finger grip on the planar member (as seen on top of 30 in Fig. 3 and col 4 ln 65-67).

With respect to claim 5, Ferrell discloses the latch of claim 1, wherein the latch comprises two barbed wing members, wherein a first barbed wing member extends distally from a first edge of the planar member, and a second barbed wing member extends distally from a

second edge of the planar member, wherein the first barbed wing member and the second barbed wing member are collinear (30-3 in Fig. 3).

With respect to claim 9, Ferrell discloses a rechargeable battery pack, comprising:

- at least one rechargeable battery cell (col 3 ln 10);
- a housing comprising a top and a bottom, into which the at least one rechargeable battery cell is placed (20 in Fig. 3), wherein the housing comprises at least one latch aperture for receiving a battery latch (opening at end of 20 in Fig. 3); and
- the latch of claim 1 (30 in Fig. 3 and described in the rejection of claim 1).

With respect to claim 12, Ferrell discloses the battery pack of claim 9, wherein the latch aperture comprises at least one slot for receiving the at least one insertion snap (as seen on the end of 20 in Fig. 3).

With respect to claim 13, Ferrell discloses the battery pack of claim 9, wherein the latch aperture comprises at least one slot for receiving the at least one mechanical stop (20-4 in Fig. 3).

With respect to claim 14, Ferrell discloses the battery pack of claim 9, wherein the latch aperture comprises at least one slot for receiving the at least one barbed wing member (20-5 in Fig. 3).

7. Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Sharrah (US 6,633,152).

With respect to claim 1, Sharrah discloses a latch for a rechargeable battery pack, comprising:

- a planar member (81 in Fig. 9);
- at least one spring retention post coupled to the planar member (84 in Fig. 9);

at least one insertion snap coupled to the planar member (82 and 83 in Fig. 9); and at least one barbed wing member coupled to the planar member, extending distally outward from the planar member (80 in Fig. 9).

With respect to claim 2, Sharrah discloses the latch of claim 1, further comprising at least one mechanical stop coupled to the planar member (right side of case under 80 in Fig. 9).

With respect to claim 3, Sharrah discloses the latch of claim 2, further comprising at least one barbed wing member support, wherein the at least one barbed wing member support extends perpendicularly from the planar member such that the barbed wing member is in a non-coplanar geometric relationship with the planar member (83 in Fig. 9).

With respect to claim 4, Sharrah discloses the latch of claim 2, further comprising a finger grip on the planar member (81 in Fig. 9).

With respect to claim 5, Sharrah discloses the latch of claim 1, wherein the latch comprises two barbed wing members, wherein a first barbed wing member extends distally from a first edge of the planar member, and a second barbed wing member extends distally from a second edge of the planar member, wherein the first barbed wing member and the second barbed wing member are collinear (83 in Fig. 9 and top of 80 in Fig. 9).

With respect to claim 6, Sharrah discloses the latch of claim 3, wherein each of the barbed wing members comprises at least one barb, wherein the at least one barb extends from the barbed wing members perpendicularly (82 in Fig. 9).

With respect to claim 7, Sharrah discloses the latch of claim 6, wherein the at least one barb comprises at least one inclined planar member (80 in Fig. 9).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharrah (US 6,633,152) in view of Ferrell (US 4,213,078).

With respect to claim 8, Sharrah discloses the latch of claim 7 as noted under the rejection under 35 U.S.C. 102(e), however, does not expressly disclose wherein the latch is manufactured from a material selected from the group consisting of plastics, styrene, ABS, polystyrene, acrylic, polycarbonates, resin, and rubber.

Ferrell discloses wherein the latch is manufactured from plastic or another insulating material (col 4 ln 64-65), so that user would be protected from any shock and so that the latch or device would be lightweight, sturdy, and inexpensive as recited by David, Jr. (US 4,728,157 col 3 ln 50-52).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to make the latch of Sharrah out of an insulating material, in order to prevent the user from any shock and to keep the latch or device lightweight, sturdy, and inexpensive.

10. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferrell (US 4,213,078) in view of David, Jr. (US 4,728,157).

With respect to claims 10 and 11, Ferrell discloses the battery pack of claim 9 as noted above under the rejection under 35 U.S.C. 102(b) and discloses wherein the latch aperture

comprises at least one spring retention post (mid section of 30-2 to which spring 30-4 attaches in Fig. 12 and Fig. 13 and col 5 ln 2-4), however, does not expressly disclose the pack further comprising a butterfly spring.

David, Jr. discloses a latch secured into different positions by action of a butterfly spring connected to a spring retention post (72 in Fig. 2 and col 4 ln 40-44), in order to urge the toggle member into either one of its first and second positions and to provide a definitive latching action (col 4 ln 44-48), which will prevent the disk or other object being secured from coming out of the holder.

Ferrell and David, Jr. are analogous art because they are from the same field of endeavor which is latching mechanisms, and the specification sent in with this application further points out that it would be obvious to those of ordinary skill in the art that the latch assembly may be equally applied to numerous other devices, including detachable accessories (including disk drives).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the battery pack and latch of Ferrell to include a butterfly spring, so that the toggle member could be urged into either of its positions and so that there would be a definitive latching action, which would prevent the battery pack from coming out of its holder.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Parker (US 6,350,040) discloses a rechargeable battery with a latch and an inclined planar member. Oyamada (US 4,881,150) discloses a holder or latch assembly for a portable communication apparatus with a butterfly clip.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Piggush whose telephone number is 571-272-5978. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



6/23/05

A handwritten signature of Michael Sherry in black ink, consisting of stylized initials and a date.

MICHAEL SHERRY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800